AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended)   An error control method, using a control connection between a receiver and a transmitter in a wireless communication system, the error control method comprising:

(a) setting up a control connection between the receiver and the transmitter;

(b) checking a reception status of MPDUs (MAC (Medium Access Control) Protocol Data Units) by frames when traffic exists;

(c) creating an acknowledgement (ACK) message for data transmission in a previous frame and sending it to the transmitter; and

(d) disconnecting the control connection when the traffic ends, wherein the ACK message includes a payload field representing the first and last sequence numbers successfully received in succession among the MPDUs transmitted in the previous frame.

Claim 2 (Original)   The error control method as claimed in claim 1, wherein the step (c) further comprises:

analyzing the ACK message and determining whether to resend the MPDUs.

Claim 3 (Canceled)

Claim 4 (Currently Amended)   The error control method as claimed in ~~claim 3~~claim 1, wherein the step (c) further comprises:

analyzing the ACK message; and

resending MPDUs other than the range of the sequence numbers reported through the payload field of the ACK message.

Claim 5 (Withdrawn)   A medium access control (MAC) frame designing method for transferring resource allocation information from an access point to a plurality of terminals in a wireless communication system, the MAC frame designing method comprising:

(a) allocating a corresponding connection ID to each of said terminals; and

(b) assigning information on a sub-carrier allocation status for the connection ID, and the number of allocated information bits of each sub-carrier to the sub-carrier allocation information.

Claim 6 (Withdrawn) The MAC frame designing method as claimed in claim 5, wherein the step (b) comprises assigning the number of allocated information bits of each sub-carrier in addition to the information on the sub-carrier allocation status.

Claim 7 (Withdrawn) The MAC frame designing method as claimed in claim 5, wherein the step (b) comprises assigning the information on the sub-carrier allocation status and then the number of allocated information bits of each sub-carrier for the allocated sub-carriers.

Claim 8 (Withdrawn) The MAC frame designing method as claimed in claim 5, wherein the step (b) comprises assigning, by sub-carriers, both the information on the sub-carrier allocation status and the number of allocated information bits.

Claim 9 (Withdrawn)   A registration method for registering a terminal with an access point using a medium access control frame in a wireless communication system,

the medium access control frame being divided into a downlink sub-frame including a broadcast interval and a first management connection interval, and an uplink sub-frame including an access interval and a second management connection interval, the broadcast interval being used for transmitting downlink and uplink map messages, said method comprising:

(a) receiving a ranging request message from the terminal using the access interval;

(b) sending ranging allocation information to the terminal using the downlink and uplink map messages;

(c) performing ranging through a ranging slot;

(d) receiving a registration request message from the terminal using the second management connection interval; and

(e) sending information on whether to permit the registration to the terminal using the first management connection interval.

Claim 10 (Withdrawn)   The registration method as claimed in claim 9, wherein the step (a) further comprises:

transferring the uplink and downlink map messages to the terminal using the broadcast interval, before receiving the ranging request message.

Claim 11 (Withdrawn)   The registration method as claimed in claim 9, wherein the step (c) comprises:

receiving a ranging response message from the terminal;

sending the downlink and uplink map messages including the allocated ranging slot to the terminal;

receiving the ranging request message from the terminal through the allocated ranging slot; and

sending the ranging response message to the terminal using the first management connection interval.

Claim 12 (Withdrawn)   The registration method as claimed in claim 9, wherein registration request message in the step (d) includes information on authentication, transmission rate, and capability.

Claim 13 (Withdrawn)   The registration method as claimed in claim 9, further comprising:

(f) receiving a ranging slot request message from the terminal using the second management connection interval;

(g) reallocating the ranging slot to the terminal, and transferring the downlink and uplink map messages including information on the reallocated ranging slot;

(h) receiving a ranging request message from the terminal using the reallocated ranging slot; and

(i) sending a ranging response message using the first management connection interval.

Claim 14 (Withdrawn)   A recording medium with a built-in program, which implements a function of designing a medium access control (MAC) frame to register a terminal with an access point in a wireless communication system, the program comprising:

allocating an access interval to the MAC frame so as to enable the terminal to send a ranging request message to the access point;

allocating a broadcast interval to the MAC frame so as to enable the access point to send downlink and uplink map messages including allocated ranging information to the terminal;

allocating an uplink management connection interval to the MAC frame so as to enable the terminal to send a registration request message to the access point; and

allocating a downlink management connection interval to the MAC frame so as to enable the terminal to send information on whether to permit the registration and a ranging response message to the terminal.